

PATENT COOPERATION TREATY

CCD

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

To:
KNOBBE, MARTENS, OLSON
AND BEAR, LLP
Attn. Delaney, Karoline A.
620 Newport Center Drive
16th Floor
Newport Beach, CA 92660
UNITED STATES OF AMERICA

Date of mailing (day/month/year)	28/01/2002
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Applicant's or agent's file reference APTLTD.013VP	FOR FURTHER ACTION See paragraphs 1 and 4 below
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International application No. PCT/US 01/28128	International filing date (day/month/year) 05/09/2001
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Applicant ADVANCED PLASTICS TECHNOLOGIES, LTD.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.


☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90b/s.1 and 90b/s.3, respectively, before the completion of the technical preparations for international publication.

Within **19 months** from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within **20 months** from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

<p>Name and mailing address of the International Searching Authority</p> <div style="text-align: center;">  </div> <p>European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016</p>	<p>Authorized officer</p> <p style="text-align: center;">Irene Sardjoe</p>
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NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference APTLTD.013VP	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 01/ 28128	International filing date (day/month/year) 05/09/2001	(Earliest) Priority Date (day/month/year) 05/09/2000
Applicant ADVANCED PLASTICS TECHNOLOGIES, LTD.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the International search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

5



None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/28128

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B29C45/73 B29C45/14 B29C49/00 B29C49/22 //B29K67:00,
B29K105:26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B29C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, WPI Data, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	✓ WO 98 46410 A (HUSKY INJECTION MOLDING) 22 October 1998 (1998-10-22)	10, 35
Y	page 21, paragraph 1; claims 1-49; figures 1-10	1-4, 7
X	✓ US 5 804 305 A (DARR RICHARD C ET AL) 8 September 1998 (1998-09-08)	15, 17, 18
Y	column 6, line 66 -column 7, line 17; claims 1, 4, 5, 7; figure 4	1-4, 7
E	✓ WO 01 83193 A (LEE ROBERT A ;ADVANCED PLASTICS TECHNOLOGIES (GB); HUTCHINSON GERA) 8 November 2001 (2001-11-08) claims 39, 45	10-14, 35-39
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *A* document member of the same patent family

Date of the actual completion of the international search

18 January 2002

Date of mailing of the international search report

28/01/2002

Name and mailing address of the ISA

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NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Van Nieuwenhuize, O

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/28128

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	✓ WO 97 02939 A (KRISHNAKUMAR SUPPAYAN M ;COLLETTE WAYNE N (US); CONTINENTAL PET TE) 30 January 1997 (1997-01-30) claims 1-5,9,29,33	1,7,10
A	✓ US 5 472 753 A (FARHA SAID K) 5 December 1995 (1995-12-05) column 12, line 55 -column 13, line 25; figure 4	1
A	✓ EP 0 073 151 A (YOSHINO KOGYOSHO CO LTD) 2 March 1983 (1983-03-02) claim 1	1
A	✓ US 4 590 021 A (OTA AKIHO ET AL) 20 May 1986 (1986-05-20) claim 1	1
A	✓ PATENT ABSTRACTS OF JAPAN vol. 007, no. 189 (M-237), 18 August 1983 (1983-08-18) 2 JP 58 092536 A (TOYOD SEIKAN KK), 1 June 1983 (1983-06-01) abstract	5
A	✓ WO 99 20462 A (PLASTICS FABRICATION TECHNOLOGIES LLC) 29 April 1999 (1999-04-29) page 25, line 14 -page 26, line 36	6-8,15
A	✓ DE 21 08 774 A (HENCH H) 9 September 1971 (1971-09-09) page 14, last paragraph; figures 2-4; example 5	10-14
A	✓ EP 0 937 304 A (METGET AB) 25 August 1999 (1999-08-25) the whole document	10

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/28128

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9846410	A	22-10-1998	AU 6959798 A CN 1252023 T EP 1019234 A1 JP 2000511483 T US 6168740 B1 WO 9846410 A1 US 2001028930 A1 US 2001016239 A1	11-11-1998 03-05-2000 19-07-2000 05-09-2000 02-01-2001 22-10-1998 11-10-2001 23-08-2001
US 5804305	A	08-09-1998	US 5443766 A AT 208728 T AU 682397 B2 AU 7679994 A BR 9407434 A CA 2170039 A1 DE 69429096 D1 EP 0717704 A1 IL 110838 A JP 9502404 T WO 9507219 A1 US 5651933 A ZA 9406675 A	22-08-1995 15-11-2001 02-10-1997 27-03-1995 09-04-1996 16-03-1995 20-12-2001 26-06-1996 31-01-2000 11-03-1997 16-03-1995 29-07-1997 24-04-1995
WO 0183193	A	08-11-2001	WO 0183193 A1	08-11-2001
WO 9702939	A	30-01-1997	US 6217818 B1 AU 709059 B2 AU 6485896 A BR 9609608 A CA 2226230 A1 EP 1147872 A2 EP 0837763 A1 NZ 312920 A WO 9702939 A1	17-04-2001 19-08-1999 10-02-1997 25-05-1999 30-01-1997 24-10-2001 29-04-1998 28-10-1999 30-01-1997
US 5472753	A	05-12-1995	AU 688899 B2 AU 2331595 A EP 0689933 A2 JP 8318607 A	19-03-1998 11-01-1996 03-01-1996 03-12-1996
EP 0073151	A	02-03-1983	JP 1039896 B JP 1562882 C JP 58036420 A AU 558962 B2 AU 8747282 A CA 1184717 A1 DE 3276103 D1 EP 0073151 A2 HK 8690 A US 4589559 A	24-08-1989 12-06-1990 03-03-1983 19-02-1987 24-02-1983 02-04-1985 27-05-1987 02-03-1983 09-02-1990 20-05-1986
US 4590021	A	20-05-1986	JP 1414772 C JP 55012031 A JP 61035056 B AU 520521 B2 AU 4548279 A CA 1143522 A1 CH 636556 A5	10-12-1987 28-01-1980 11-08-1986 04-02-1982 03-01-1980 29-03-1983 15-06-1983

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/28128

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4590021	A		DE 2911149 A1	10-01-1980
			FR 2429660 A1	25-01-1980
			FR 2491873 A1	16-04-1982
			GB 2024087 A ,B	09-01-1980
			GB 2074932 A ,B	11-11-1981
			IT 1164039 B	08-04-1987
			NL 7902235 A	03-01-1980
			NL 8105759 A	01-04-1982
			US 4375442 A	01-03-1983
			US 4379099 A	05-04-1983
			US 4572811 A	25-02-1986
			US 5261545 A	16-11-1993
JP 58092536	A	01-06-1983	NONE	
WO 9920462	A	29-04-1999	US 6312641 B1	06-11-2001
			AU 1100899 A	10-05-1999
			BR 9815227 A	17-10-2000
			CN 1276816 T	13-12-2000
			EP 1023395 A2	02-08-2000
			JP 2001520135 T	30-10-2001
			NO 20001915 A	13-06-2000
			WO 9920462 A2	29-04-1999
DE 2108774	A	09-09-1971	CH 507802 A	31-05-1971
			DE 2108774 A1	09-09-1971
			FR 2080760 A5	19-11-1971
			GB 1343732 A	16-01-1974
			NL 7102479 A	27-08-1971
EP 0937304	A	25-08-1999	WO 9821730 A1	22-05-1998
			AU 1214797 A	03-06-1998
			EP 0937304 A1	25-08-1999
			SE 505944 C2	27-10-1997
			SE 9501758 A	13-11-1996
			US 6192574 B1	27-02-2001